

NOTICE OF RELATED APPLICATIONS

This application is also related to the following applications:

Application Serial No. 09/590,417, entitled "METHOD AND APPARATUS FOR TRANSMITTING, RECEIVING, AND UTILIZING AUDIO/VISUAL SIGNALS AND OTHER INFORMATION", filed June 08, 2000, by Arthur Tilford;

Application Serial No. 09/620,772, entitled "SUPER ENCRYPTED STORAGE AND RETRIEVAL OF MEDIA PROGRAMS WITH SMARTCARD GENERATED KEYS", filed July 21, 2000, by Raynold M. Kahn et al.;

Application Serial No. 09/620,773, entitled "SUPER ENCRYPTED STORAGE AND RETRIEVAL OF MEDIA PROGRAMS WITH MODIFIED CONDITIONAL ACCESS FUNCTIONALITY", filed July 21, 2000, by Raynold M. Kahn et al., now issued April 10, 2007 as U.S. Patent No. 7,203,314;

Application Serial No. 09/620,832, entitled "VIDEO ON DEMAND PAY PER VIEW SERVICES WITH UNMODIFIED CONDITIONAL ACCESS FUNCTIONALITY", filed July 21, 2000, by Raynold M. Kahn et al., now issued February 08, 2005 as U.S. Patent No. 6,853,728;

Application Serial No. 09/620,833, entitled "SECURE STORAGE AND REPLAY OF MEDIA PROGRAMS USING A HARD-PAIRED RECEIVER AND STORAGE DEVICE, filed July 21, 2000, by Raynold M. Kahn et al.;

Application Serial No. 09/621,476, entitled "SUPER ENCRYPTED STORAGE AND RETRIEVAL OF MEDIA PROGRAMS IN A HARD-PAIRED RECEIVER AND STORAGE DEVICE", filed July 21, 2000, by Raynold M. Kahn et al., now issued April 10, 2007 as U.S. Patent No. 7,203,311;

Application Serial No. 09/960,824, entitled "METHOD AND APPARATUS FOR ENCRYPTING MEDIA PROGRAMS FOR LATER PURCHASE AND VIEWING", filed September 21, 2001, by Raynold M. Kahn et al., now issued August 05, 2008 as U.S. Patent No. 7,409,562;

Application Serial No. 10/490,261, entitled "METHOD AND APPARATUS FOR CONTROLLING PAIRED OPERATION OF A CONDITIONAL ACCESS MODULE AND AN INTEGRATED RECEIVER AND DECODER", filed August 5, 2004, by Raynold M. Kahn et al., which is a national stage entry of PCT/US02/29881 filed September 20, 2002;

Application Serial No. 10/758,811, entitled "DISTRIBUTION OF VIDEO CONTENT USING A TRUSTED NETWORK KEY FOR SHARING CONTENT", filed January 16, 2004, by Raynold M. Kahn et al;

Application Serial No. 10/758,818, entitled "DISTRIBUTION OF BROADCAST CONTENT FOR REMOTE DECRYPTION AND VIEWING", filed January 16, 2004, by Raynold M. Kahn et al;

Application Serial No. 10/758,865, entitled "DISTRIBUTION OF VIDEO CONTENT USING CLIENT TO HOST PAIRING OF INTEGRATED RECEIVERS/DECODERS", filed January 16, 2004, by Raynold M. Kahn et al;

Application Serial No. 10/790,466, entitled "VIDEO ON DEMAND IN A BROADCAST NETWORK", filed March 01, 2004, by Stephen P. Dulac;

Application Serial No. 11/433,926, entitled "METHODS AND APPARATUS TO PROTECT CONTENT IN HOME NETWORKS", filed May 15, 2006, by Raynold M. Kahn;

Application Serial No. 11/433,969, entitled "METHODS AND APPARATUS TO PROVIDE CONTENT ON DEMAND IN CONTENT BROADCAST SYSTEMS", filed May 15, 2006, by Peter M. Klauss et al.;

Application Serial No. 11/434,082, entitled "CONTENT DELIVERY SYSTEMS AND METHODS TO OPERATE THE SAME", filed May 15, 2006, by Raynold M. Kahn et al.;

Application Serial No. 11/434,404, entitled "SECURE CONTENT TRANSFER SYSTEMS AND METHODS TO OPERATE THE SAME", filed May 15, 2006, by Raynold M. Kahn et al.;

Application Serial No. 11/434,437, entitled "METHODS AND APPARATUS TO CONDITIONALLY AUTHORIZE CONTENT DELIVERY AT RECEIVERS IN PAY DELIVERY SYSTEMS", filed May 15, 2006, by Raynold M. Kahn et al.;

Application Serial No. 11/434,528, entitled "METHODS AND APPARATUS TO CONDITIONALLY AUTHORIZE CONTENT DELIVERY AT BROADCAST HEADENDS IN PAY DELIVERY SYSTEMS", filed May 15, 2006, by Raynold M. Kahn et al.;

Application Serial No. 11/434,538, entitled "METHODS AND APPARATUS TO CONDITIONALLY AUTHORIZE CONTENT DELIVERY AT CONTENT SERVERS IN PAY DELIVERY SYSTEMS", filed May 15, 2006, by Raynold M. Kahn et al.;

Application Serial No. 11/499,635, entitled "DISTRIBUTED MEDIA-PROTECTION SYSTEMS AND METHODS TO OPERATE THE SAME", filed August 04, 2006, by Michael H. Ficco;

Application Serial No. 11/499,636, entitled "DISTRIBUTED MEDIA-AGGREGATION SYSTEMS AND METHODS TO OPERATE THE SAME", filed August 04, 2006, by Michael H. Ficco;

Application Serial No. 11/501,985, entitled "SECURE DELIVERY OF PROGRAM CONTENT VIA A REMOVAL STORAGE MEDIUM", filed August 10, 2006, by Raynold M. Kahn et al.;

Application Serial No. 11/654,752, entitled "SECURE STORAGE AND REPLAY OF MEDIA PROGRAMS USING A HARD-PAIRED RECEIVER AND STORAGE DEVICE", filed January 18, 2007, by Raynold M. Kahn et al., which is a continuation of Application Serial No. 09/620,833, entitled "SECURE STORAGE AND REPLAY OF MEDIA PROGRAMS USING A HARD-PAIRED RECEIVER AND STORAGE DEVICE", filed July 21, 2000, by Raynold M. Kahn et al.;

Application Serial No. 11/701,800, entitled "SUPER ENCRYPTED STORAGE AND RETRIEVAL OF MEDIA PROGRAMS IN A HARD-PAIRED RECEIVER AND STORAGE DEVICE", filed February 02, 2007, by Raynold M. Kahn et al., which is a continuation of Application Serial No. 09/621,476, entitled "SUPER ENCRYPTED STORAGE AND RETRIEVAL OF MEDIA PROGRAMS IN A HARD-PAIRED RECEIVER AND STORAGE DEVICE", filed July 21, 2000, by Raynold M. Kahn et al., now issued April 10, 2007 as U.S. Patent No. 7,203,311;

Application Serial No. 12/172,901, entitled "SUPER ENCRYPTED STORAGE AND RETRIEVAL OF MEDIA PROGRAMS WITH SMARTCARD GENERATED KEYS", filed July 14, 2008, by Raynold M. Kahn et al., which is a continuation of Application Serial No. 09/620,772, "SUPER ENCRYPTED STORAGE AND RETRIEVAL OF MEDIA PROGRAMS WITH SMARTCARD GENERATED KEYS", filed July 21, 2000, by Raynold M. Kahn et al.; and,

Application Serial No. 12/184,957, entitled "METHOD AND APPARATUS FOR ENCRYPTING MEDIA PROGRAMS FOR LATER PURCHASE AND VIEWING", FILED

August 1, 2008, by Raynold M. Kahn et al., which is a continuation of Application Serial No. 09/960,824 entitled "METHOD AND APPARATUS FOR ENCRYPTING MEDIA PROGRAMS FOR LATER PURCHASE AND VIEWING", filed September 21, 2001, by Raynold M. Kahn et al., now issued August 05, 2008 as U.S. Patent No. 7,409,562.

REMARKSI. Introduction

In response to the Office Action dated August 5, 2008, please consider the following remarks. Claims 20-22, 44-46, and 48-57 remain in the application. Re-examination and re-consideration of the application, as amended, is requested.

II. Prior Art from Related Cases

According to MPEP §§2001.06, 609.02, the Examiner will consider prior art cited in earlier continuation applications, and must indicate in the first Office Action whether the prior art cited in the related earlier application has been reviewed.

The Applicants note that this application is a continuation of one or more parent or sibling applications. Accordingly, the Applicants respectfully request that the Examiner indicate that a review of the related cases has been undertaken and the prior art cited and arguments made in those applications has been considered.

In addition, Applicants wish to make the Examiner aware of a number of related applications listed on pages 7 – 11 herein. Information in these applications may or may not be material and non-cumulative to information presented in this application, and consistent with Rule 56, the Applicant will endeavor to bring material and non-cumulative information from these applications to the Examiner's attention in an Information Disclosure Statement. However, the Examiner is encouraged to review the related applications for any information that might be useful in determining the patentability of the Applicant's invention.

III. Specification Amendments

In paragraph (2), the Office Action refuses entry of specification amendments attempting to incorporate other applications by reference. The Applicants apologize for the error. The Applicants have amended the specification to recite its continuation status.

#### IV. Office Action Double Patenting Rejection

In paragraph 4, the Office Action provisionally rejects claim 20 under the judicially-created doctrine of double patenting as being unpatentable over claim 1 of U.S. Patent 6,701,528. The Applicants respectfully traverse this rejection. Claim 1 of the '528 patent does not claim the notion of receiving a plurality of time segments of the selected video program in parallel and that the segments are received on a different one of the channels. The Applicant therefore respectfully disagrees that claim 20 is merely broader than claim 1 of the '528 patent.

In paragraph 4, the Office Action provisionally rejects claim 44 under the judicially-created doctrine of double patenting as being unpatentable over claim 20 of U.S. Patent 6,701,528. The Applicant traverses this rejection for the same reason as described above.

#### V. The Cited References and the Subject Invention

##### A. The Ebisawa Reference

U.S. Patent No. 6,263,504, issued July 17, 2001 to Ebisawa discloses a data delivery system, data receiving apparatus, and storage medium for video programs. A data storage unit is provided in a receiving apparatus, whereby a video program can be provided with an instantaneous response equivalent to the VOD system. Namely, the data of the first part of the video data is stored in the data storage unit in advance. When there is a request for reproduction, that stored data is immediately reproduced. The data after the first data is sent from a transmitting apparatus in the same way as an NVOD system heretofore. Buffering is performed in the receiving apparatus, and the resultant data is reproduced continuous with the data of the first part.

##### B. The Artigas Reference

U.S. Patent No. 6,091,883, issued July 18, 2000 to Artigas et al. discloses a method and device for recording and reading on a large-capacity medium. The disclosure relates to a recording and reading apparatus constituting a kind of video reservoir in the home of the consumer. Thanks to a large-capacity storing technique with suitable technical device, broadcasters transmit numerous programs via specific channels and the consumer may control the content of his reservoir (by recording, reading and erasing programs). The invention is applicable to on-demand video in the consumer's home with a video reservoir constituting a video-library that is regularly updated by broadcasters and/or by the consumer himself.

### C. The Reynolds Reference

U.S. Patent No. 6,934,963, issued August 23, 2005 to Reynolds et al. discloses an interactive television program guide with passive content. A hybrid passive-interactive program guide is generated by combining the features of an interactive program guide with the passive video portion of a passive program guide. The interactive guide may replace passive listings with interactive listings, replace passive features with interactive features, provide supplemental advertisements, or replace passive tagging information with interactive tagging information. Users may be provided with an opportunity to purchase a program or product being advertised, to view listings for segments aired in the video portion of the passive guide, to schedule reminders for listings or video segments that are displayed by the passive guide, or to schedule video segments and related information for recording.

### D. The Okura Reference

U.S. Patent No. 6,487,722, issued November 26, 2002 to Okura et al. disclose an EPG transmitting apparatus and method, EPG receiving apparatus and method, EPG transmitting/receiving system and method, and provider. The broadcast hour and the title of a program is displayed in an EPG (Electronic Program Guide). If the charge of the program is lower than the other corresponding programs, a symbol "Discount" is also displayed. If the program is the last one of NVOD (Near Video On Demand) programs, a symbol "Last" is also displayed.

### E. The Subject Invention

A method and apparatus for providing a virtual video on demand services is disclosed. The method and apparatus disclose the storing of a segment of the video program in advance for VOD viewing at a later time. When the subscriber selects VOD service, a pre-stored video segment is retrieved for presentation to the subscriber. Remaining video program segments simultaneously broadcast on a plurality of channels are recorded in parallel while the pre-stored video program segment is retrieved and presented to the user.



VI. Office Action Prior Art Rejections

In paragraph 6, the Office Action rejected claims 20, 21, 44, 45, 48 and 50-52 under 35 U.S.C. §103(a) as unpatentable over Ebisawa, U.S. Patent 6,263,504 (Ebisawa) in view of Artigalas et al., U.S. Patent 6,091,883 (Artigalas). The Applicants respectfully traverse this rejection.

With Respect to Claims 20-21: Claim 20 recites:

*A method of storing a video program in response to a user demand, wherein the video program is repeatedly transmitted on one of a plurality of channels, each repeated transmission separated in time from a preceding transmission of the video program by a retransmission interval and being transmitted on a different channel than the previous transmission, the method comprising the steps of:*  
*selecting at least one of a plurality of video programs; and*  
*receiving a plurality of time segments of the selected video program in parallel, wherein each of the time segments is received on a different one of the channels.*

Ebisawa is said to disclose a method of storing a video program in response to a user demand (col. 6, lines 12-34), wherein the video program is repeatedly transmitted on one of a plurality of channels, each repeated transmission separated in time from a preceding transmission of the video program by a retransmission interval and being transmitted on a different channel than the previous transmission, and selecting at least one of a plurality of video programs.

The Office Action acknowledges that Ebisawa does not teach the process of receiving the time segments in parallel, but alleges that Artigalas discloses this feature as follows:

device including:  
means of reception frequency selection enabling recep-<sup>10</sup>  
tion of one or more broadcasting channels simulta-  
neously;

and

10 The device of the invention can be incorporated in a television decoder or in a television receiver. As shown in FIG. 1, the device of the invention includes means of frequency selection 1 able to provide signals from one or more channels in parallel, the channels being picked up by  
15 an antenna 2 in the case of an air or satellite broadcast or received via a cable network. Said means of frequency selection 1 can include one or more analog and/or digital "tuners", in order to provide several channels of programs in parallel. The signals output by said means of frequency  
20 selection 1 are processed by means of digital encoding 3 which convert, if need be, the analog signals into digital signals and possibly assure the digital compression and/or multiplexing of the received signals. The encoded digital signals are then fed to the means of recording and reading 4  
25 to be recorded on a large-capacity recording medium 4a. Means of control 5 along with a user interface module 6 (in the form of buttons integrated in the device or a remote controller) enable the user to control the means of frequency selection 1 and the means of recording and reading 4.  
30 As indicated previously, the means of recording and reading 4 can use the matrix-head magnetic recording technique or the techniques of digital video cassettes (in which case the means of digital encoding 3 also assure the multiplexing if two or more channels are to be recorded in parallel  
35 on the recording medium 4a).

However, while the foregoing discloses the reception of more than one channel in parallel, it also teaches that different programs transmitted (and recorded) on each of the channels. This is to allow the viewer to record different TV programs at the same time:

A problem arises when the viewer is interested in several programs broadcast at the same time or when several members of his family with different tastes share the same TV set. To resolve this problem, one solution would be simply to acquire more TVs and VCRs, but this solution is  
25 costly and the correction and use of several recorders in parallel can be problematic.

A viewer may also wish to record a number of TV programs when he is not watching the television (during the day when he is at work or during the night). The present  
30 solution is to program the video recorder to record sequentially in time a number of programs selected in advance. However, a problem arises if the programs are not broadcast at the time announced; there is also the problem of the limited recording capacity (a few hours at most) of present  
35 video cassettes. These constraints seriously limit the freedom of the user to record programs of interest.

(col. 1, lines 21-27)

- 55 The recording and reading functions are advantageously independent of each other, in order to allow reading of one or more recorded programs while recording other programs. The consumer is then able to update the content of his video and/or audio reservoir at any time.
- 60 The method preferably enables programs designated by the user to be locked, so that they can not be erased. In this way the user can build up a personal collection of protected recordings. To delete one of the recordings, the user must first unlock it, then erase it from the recording medium.
- 65 Advantageously, the method enables simultaneous recording and/or reading of several programs in order to

(col. 2, lines 55 et seq.)

The Office Action argues that it would have been obvious for one of ordinary skill in the art to combine Ebisawa and Artigalas for the benefit of providing the user with a more minimal waiting time and to be able to provide playback functions.

As a threshold matter, the Applicants respectfully disagree that there is a teaching to combine Ebisawa and Artigalas as suggested. Both are directed to the notion of how to provide video programs to users so that they can be played back on demand. Both recognize that bandwidth requirements make it difficult to do so, and each reference offers an entirely different solution than the other.

Ebisawa teaches that immediate access to a media program be provided by pre-storing the initial portion of the media program, then downloading the remainder while the initial portion is being played back. In this way, transmission and storage requirements are reduced. Artigalas teaches that a plurality of media programs, in their entirety, be transmitted on different channels and downloaded in advance. Artigalas requires no more transmission bandwidth, because the programs are transmitted on different channels for real-time viewers anyway. However, Artigalas requires substantial storage capability. Ebisawa requires a substantial amount of transmission bandwidth, but less storage. Accordingly, Artigalas and Ebisawa offer *different* solutions to the same problem, and teach away from any such combination.

“A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant. The degree of teaching away will of course depend on the particular facts; in general, a reference’s disclosure will teach away if it suggests that the line of development flowing from the reference’s disclosure is unlikely to be

productive of the result sought by the Applicant. *In re Gurley*, 27 F.3d 551, 553, 31 U.S.P.Q.2d 1130 (Fed. Cir. 1994).

Even if the teachings of Ebisawa and Artigalas were combined, the combination would not read on the Applicant's claimed invention. Ebisawa teaches pre-storing the first n minutes of a media program and transmitting the same program on different channels to permit near video on demand. Artigalas teaches transmitting different programs on different channels and storing them simultaneously. If one of ordinary skill in the art were to modify Ebisawa as described in Artigalas, the result would be a system in which the first n minutes of multiple media programs were transmitted on multiple channels for pre-storage in the receiver, not a system in which multiple channels are used to receive and store the *same* program after the program has been requested.

Finally, the motivation offered by the Office Action "for the mere benefit of providing the user with more minimal waiting time and to be able to provide playback functions" can be achieved in other ways that *are* taught by the references of record. Artigalas itself teaches that the way to minimize waiting and provide playback functions is to download the entire video before it is requested by the user. Further, the same result can be achieved with Ebisawa by simply downloading more information than the n minutes it discloses (e.g. downloading 3n minutes in advance). This, in fact, is what Artigalas would teach.

Accordingly, the Applicants respectfully traverse the rejection of claim 21 as unpatentable over Ebisawa in view of Artigalas. Claim 21 recites analogous features and is patentable for the same reasons.

With Respect to Claims 44 and 45: Claim 44 recites:

*An apparatus for storing a video program in response to a user demand, wherein the video program is repeatedly transmitted on one of a plurality of channels, each repeated transmission separated in time from a preceding transmission of the video program by a retransmission interval and being transmitted on a different channel than the previous transmission, the method comprising:*

*means for selecting at least one of a plurality of video programs; and*

*means for receiving a plurality of time segments of the selected video program in parallel, wherein each of the time segments is received on a different one of the channels.*

Claim 44 recites features analogous to those of claim 20 and is patentable for the same reasons. Claim 45 recites the features of claim 44 and is patentable for the same reasons.

With Respect to Claims 48: Claim 48 recites:

*An apparatus for providing a video program in response to a user demand, wherein the video program is repeatedly transmitted on one of a plurality of channels, each repeated transmission temporally separated from a previous transmission by a retransmission interval and being transmitted on a different channel than the previous transmission, the apparatus comprising:*

*an input device for accepting a selection of at least one of a plurality of video programs for VOD service;*

*a tuner for receiving multiple segments of the selected video program in parallel, wherein each segment is received on one of the plurality of channels; and*

*a storage device, for pre-storing a first segment of the selected video program, and for storing subsequent segments of the selected video program in parallel while retrieving the pre-stored first segment of the selected video program.*

Claim 48 recites a tuner for receiving multiple segments of a selected video program (not several video programs) in parallel, wherein each segment is received on one of a plurality of channels. As described above, none of the references of record disclose this feature.

With Respect to Claims 50 and 51: Claim 50 recites:

*An apparatus for providing a video program transmitted in time segments on a plurality of channels in response to a user demand, comprising:*

*an input device for accepting a selection of at least one of a plurality of video programs for VOD service;*

*a tuner for receiving time segments of the selected video program in parallel, wherein each segment is received on one of the plurality of channels; and*

*a storage device, for storing the time segments of the selected video program in parallel wherein each of the time segments is received on a different one of the channels.*

Claim 50 recites a tuner for receiving time segments of the selected video program in parallel, wherein each segment is received on one of the plurality of channels. As described above, none of the cited references discloses this feature. Accordingly, the Applicant respectfully traverses the rejection of claim 50.

Claim 51 recites the same features as claim 50, and is patentable for the same reasons.

With Respect to Claim 52: Claim 52 recites:

*A method of pre-storing a video program to be later provided in response to a user demand, wherein the video program is repeatedly transmitted on one of a plurality of channels, each repeated transmission temporally separated from a previous transmission by a retransmission interval and being transmitted on a different channel than the previous transmission, the method comprising the steps of:*

*receiving and storing a first segment of a selected video program in a local storage device before accepting a user to view the video program, wherein a temporal length of the first segment is substantially equivalent to the retransmission interval; and*

*wherein portions of the first segment are received and stored on the plurality of channels in parallel.*

As described above, none of the cited references discloses a system in which portions of a first segment are received in parallel. Accordingly, the Applicant respectfully traverses this rejection.

In paragraph (7), the Office Action rejected claims 22 and 46 under 35 U.S.C. §103(a) as being unpatentable over Ebisawa in view of Artigalas as applied to claims 20 and 44, and in further view of Reynolds et al., U.S. Patent No. 6,934,963 (Reynolds). Applicants respectfully traverse these rejections. Claims 20 and 46 do not disclose *receiving a plurality of time segments of the selected video program in parallel, wherein each of the time segments is received on a different one of the channels*. The Reynolds reference is of no help. The passage relied upon:

If desired, control circuitry 42 may have sufficient tuning  
35 circuitry to provide for tuning to multiple channel simultaneously. This approach may allow users to watch one channel, while simultaneously recording the passive guide or a program associated with a passive guide video segment from another channel. Systems in which interactive television  
40 program guides provide for the simultaneous watch and record of programs from multiple channels are described, for example, in Lemmons et al. U.S. patent application Ser. No. 09/329,850, filed Jun. 11, 1999, which is hereby incorporated by reference herein in its entirety.

merely discloses the use of multiple channels so as to watch one program while recording another.

In paragraph 8, the Office Action rejected claims 49 and 53-57 under 35 U.S.C. §103(a) as unpatentable over Ebisawa, Artigalas and further in view of Okura et al., U.S. Patent 6,487,722 (Okura).

Applicants respectfully traverse these rejections for the reasons described above.

## VII. Dependent Claims

Dependent claims 21, 22, 45, 46, 49, 51 and 53-57 incorporate the limitations of their related independent claims, and are therefore patentable on this basis. In addition, these claims recite novel elements even more remote from the cited references. Accordingly, the Applicant respectfully requests that these claims be allowed as well.

VIII. Conclusion

In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicants' undersigned attorney.

Respectfully submitted,

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